Electrical Engineering, Minor

The electrical engineering minor provides students with a solid foundation in electrical engineering fundamentals as well as a comprehensive study of analog and digital electronics and systems.

Electrical Engineering Minor

The Department of Electrical and Computer Engineering offers a minor in electrical engineering to undergraduate students in the university except those students in electrical engineering. Completion of the minor will be noted on the student’s transcript if the following requirements are met. A minimum of twenty-five hours including:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EECE 1610</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
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<tr>
<td>EECE 2010</td>
<td>Electric Circuits 1</td>
<td>3</td>
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<tr>
<td>EECE 2015</td>
<td>Circuits Laboratory 1</td>
<td>1</td>
</tr>
<tr>
<td>ELEN 2020</td>
<td>Electric Circuits 2</td>
<td>3</td>
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<tr>
<td>EECE 2030</td>
<td>Digital Electronics</td>
<td>3</td>
</tr>
<tr>
<td>EECE 2035</td>
<td>Circuits Laboratory 2</td>
<td>1</td>
</tr>
<tr>
<td>EECE 3010</td>
<td>Electronic Devices and Applications</td>
<td>3</td>
</tr>
<tr>
<td>EECE 3015</td>
<td>Introduction to Microcontrollers Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>ELEN 3020</td>
<td>Linear Systems Analysis</td>
<td>3</td>
</tr>
<tr>
<td>or BIEN 3300</td>
<td>Signals and Systems for Biomedical Engineering</td>
<td></td>
</tr>
<tr>
<td>ELEN 3110</td>
<td>Electromagnetic Fields 1</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credit Hours:** 25

At least half of these credit hours must be taken at Marquette University and a grade of C or better must be earned in each course for the minor.

University Policies

- Academic Advising (https://bulletin.marquette.edu/policies/academic-advising/)
- Academic Censure - Undergraduate (https://bulletin.marquette.edu/policies/academic-censure/undergraduate/)
- Academic Integrity (https://bulletin.marquette.edu/policies/academic-integrity/)
- Academic Misconduct (https://bulletin.marquette.edu/policies/academic-misconduct-policy/)
- Academic Program Definitions (https://bulletin.marquette.edu/policies/academic-programs-defined/)
- Academic Standing (https://bulletin.marquette.edu/policies/academic-standing/)
- Accelerated Degree Programs (https://bulletin.marquette.edu/policies/accelerated-degree-programs/)
- Advanced Standing Credit - Undergraduate (https://bulletin.marquette.edu/policies/advanced-standing-undergraduate/)
- Attendance - Undergraduate (https://bulletin.marquette.edu/policies/attendance-undergraduate/)
- Audit - Undergraduate (https://bulletin.marquette.edu/policies/audit/)
- Awarding Diplomas and Certificates (https://bulletin.marquette.edu/policies/awarding-diplomas-certificates/)
- Background Checks, Drug Testing (https://bulletin.marquette.edu/policies/background-checks-drug-testing/)
- Class Rank  (https://bulletin.marquette.edu/policies/class-rank/)
- Classification - Undergraduate (https://bulletin.marquette.edu/policies/classification-undergraduate/)
- Commencement  (https://bulletin.marquette.edu/policies/commencement/)
- Conferral of Degrees and Certificates (https://bulletin.marquette.edu/policies/conferral-degrees-certificates/)
- Course Levels (https://bulletin.marquette.edu/policies/course-levels/)
- Credit Hour (https://bulletin.marquette.edu/policies/credit/)
- Credit Load - Undergraduate (https://bulletin.marquette.edu/policies/credit-load/undergraduate/)
- Examinations (Midterm and Final) - Undergraduate (https://bulletin.marquette.edu/policies/examinations-midterm-final-undergraduate/)
- Faculty Grading (https://bulletin.marquette.edu/policies/faculty-grading/)
- Family Education Rights and Privacy Act-FERPA (https://bulletin.marquette.edu/policies/ferpa/)
- Grade Appeals (https://bulletin.marquette.edu/policies/grade-appeals/)
- Grading System - Undergraduate and Health Science Professional (https://bulletin.marquette.edu/policies/grading-system/undergraduate-healthscienceprofessional/)
- Graduation - Undergraduate (https://bulletin.marquette.edu/policies/graduation/undergraduate/)
• Immunization and Tuberculosis Screening Requirements (https://bulletin.marquette.edu/policies/immunization-and-tuberculosis-screening/)
• Last Date of Attendance/Activity (https://bulletin.marquette.edu/policies/last-date-of-attendance-activity/)
• Major and Minor Declaration - Undergraduate (https://bulletin.marquette.edu/policies/major-declaration/)
• Medical Withdrawal (https://bulletin.marquette.edu/policies/medical-withdrawal/)
• Military Call to Active Duty or Training (https://bulletin.marquette.edu/policies/military-call-active-duty-training/)
• Non-Degree Undergraduate Students (https://bulletin.marquette.edu/policies/non-degree-undergraduate-students/)
• Readmission - Undergraduate (https://bulletin.marquette.edu/policies/readmission/)
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• Repeated Courses - Undergraduate (https://bulletin.marquette.edu/policies/repeated-courses/undergraduate/)
• Second Language Course Placement - Undergraduate (https://bulletin.marquette.edu/policies/second-language-course-placement-undergraduate/)
• Second/Additional Bachelor Degree (https://bulletin.marquette.edu/policies/second-additional-bachelor-degree/)
• Student Data Use and Privacy (https://bulletin.marquette.edu/policies/student-data-use-privacy/)
• Study at Other Institutions - Undergraduate (https://bulletin.marquette.edu/policies/study-institutions/)
• Transcripts-Official (https://bulletin.marquette.edu/policies/transcripts-official/)
• Transfer (Internal) to Another Undergraduate College within the University (https://bulletin.marquette.edu/policies/transfer-internal-another-undergraduate-college-within-university/)
• Transfer Course Credit - Undergraduate (https://bulletin.marquette.edu/policies/transfer-course-credit-policy/undergraduate/)
• Withdrawal - Undergraduate (https://bulletin.marquette.edu/policies/withdrawals/undergraduate/)

College of Engineering Policies

• Absence from Final Exams, Incomplete (I) Grade (https://bulletin.marquette.edu/engineering/policies/absence-finals-incomplete-grade/)
• Academic Dismissal/Probation/College Academic Alert (CAA) (https://bulletin.marquette.edu/engineering/policies/dismissal-probation-college-alert/)
• Academic Integrity (https://bulletin.marquette.edu/engineering/policies/academic-integrity/)
• Academic Load (https://bulletin.marquette.edu/engineering/policies/academic-load/)
• Accreditation (https://bulletin.marquette.edu/engineering/policies/accreditation/)
• Admission Requirements (https://bulletin.marquette.edu/engineering/policies/admission-requirements/)
• Articulation Agreements (https://bulletin.marquette.edu/engineering/policies/articulation-agreements/)
• Course and Grade Limitations (https://bulletin.marquette.edu/engineering/policies/course-grade-limitations/)
• Credit/No Credit (CR/NC) Grading Option (https://bulletin.marquette.edu/engineering/policies/credit-no-credit-grading-option/)
• Curriculum Substitution and/or Allowance Petition (https://bulletin.marquette.edu/engineering/policies/curriculum-substitution-allowance-petition/)
• Dean's List (https://bulletin.marquette.edu/engineering/policies/deans-list/)
• Degrees Offered (https://bulletin.marquette.edu/engineering/policies/degrees-offered/)
• Electives (https://bulletin.marquette.edu/engineering/policies/electives/)
• Grade Appeals for Engineering Courses (https://bulletin.marquette.edu/engineering/policies/grade-appeals-engineering-courses/)
• Repeating Courses (https://bulletin.marquette.edu/engineering/policies/repeating-courses/)
• Simultaneous Enrollment in Two Academic Programs (https://bulletin.marquette.edu/engineering/policies/simultaneous-enrollment-two-academic-programs/)
• Transfer Credit from Other Programs (https://bulletin.marquette.edu/engineering/policies/transfer-credit-programs/)
• Undergraduate Independent Study (https://bulletin.marquette.edu/engineering/policies/undergraduate-independent-study/)